then I tried rubbed glaſs and china, and found that each of theſe would attract it, until it became electrified again, and then it would be repelled as at firſt; and while thus repelled by the rubbed glaſs or china, either of the others when rubbed would attract it. Then I electrified the ball, with the wire of a charged phial, and preſented to it rubbed glaſs (the ſtopper of a decanter) and a china tea cup, by which it was as ſtrongly repelled, as by the wire; but when I preſented either of the other rubbed electrics, it would be ſtrongly attracted, and when I electrified it, by either of theſe, till it became repelled, it would be attracted by the wire of the phial, but be repelled by its coating.

Theſe experiments ſurprized me very much, and have induced me to infer the following paradoxes.

1. If a glaſs globe be placed at one end of a prime conductor, and a ſulphur one at the other end, both being equally in good order, and in equal motion, not a ſpark of fire can be obtain'd from the conductor; but one globe will draw out, as faſt as the other gives in.

2. If a phial be ſuſpended on the conductor, with a chain from its coating to the table, and only one of the globes be made uſe of at a time, 20 turns of the wheel, for inſtance, will charge it; after which, ſo many turns of the other wheel will diſcharge it; and as many more will charge it again.

3. The globes being both in motion, each having a ſeparate conductor, with a phial ſuſpended on one of them, and the chain of it faſtened to the other, the phial will become charged; one globe charging poſitively, the other negatively.

4. The phial being thus charged, hang it in like manner on the other conductor; ſet both wheels a going again, and the ſame number of turns that charged it before, will now diſcharge it; and the ſame number repeated, will charge it again.

5. When each globe communicates with the ſame prime conductor, having a chain hanging from it to the table, one of them, when in motion, (but which I can't ſay) will draw fire up through the cuſhion, and diſcharge it through the chain; the other will draw it up through the chain, and diſcharge it through the cuſhion.

I ſhould be glad if you would ſend to my houſe for my ſulphur globe, and the cuſhion belonging to it, and make the trial; but muſt caution you not to uſe chalk on the cuſhion, ſome fine powdered ſulphur will do better. If, as I expect, you ſhould find the globes to charge the prime conductor differently, I hope you will be able to diſcover ſome method of determining which it is that charges poſitively.

*I am*, &c.

E. KINNERSLEY.

BENJAMIN FRANKLIN *Experiments and Observations on Electricity* LONDON, 1751 THE WARNOCK LIBRARY Octavo